

REMARKS

The Office Action dated 25 March 2005 has been reviewed, and the comments of the Patent Office considered. Claims 1 and 2 have been amended. Thus, claims 1 and 2 are respectfully submitted for reconsideration by the Examiner.

Claims 1 and 2 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Publication No. 2002/0044396 to Amano et al. ("Amano"). These rejections are respectfully traversed insofar as Amano fails to teach or suggest each and every feature recited in Applicant's claims as amended.

Applicant's amended claim 1 recites a method for manufacturing a MTJ cell of a magnetic random access memory, including "physically impacting a surface of the pinned magnetic layer with an atom to form an amorphous layer thereon, so as to increase the uniformity of the pinned magnetic layer." Support for this combination of features may be found in Applicant's specification as originally filed at, for example, page 1, lines 14-16, page 5, lines 1-8, and page 7, lines 17-21.

In contrast, Amano fails to teach or suggest increasing the uniformity of a pinned magnetic layer by physically impacting a surface of the pinned magnetic layer with an atom to form an amorphous layer thereon. Amano is directed to "a tunnel magnetoresistance effect device (TMR device) that is capable of effectively suppressing the diffusion of Mn from the antiferromagnetic material layer made of a Mn-based alloy into the tunnel barrier layer even in case of heat treatment." *See* Amano paragraph 0018. Further, Amano states at paragraph 0108 that:

"An amorphous magnetic material layer can be used in the place of the insulator material layer 105, 205, 305, or 310 described in the first to the fourth embodiments of the present invention to suppress the grain boundary diffusion of Mn."

As such, it is respectfully submitted that Amano's amorphous layer differs in both object and role with respect to the amorphous layer recited in Applicant's claim 1 as amended; and therefore Amano fails to teach or suggest each and every feature recited in Applicant's claim 1.

Claim 2 depends from claim 1 and therefore includes the same allowable combination of features as recited in claim 1, as well as reciting additional features that further distinguish over Amano.

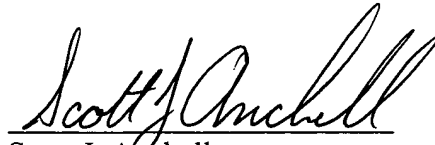
Thus, it is respectfully submitted that the rejections under 35 U.S.C. § 103(a) should be withdrawn and the claims allowed.

CONCLUSION

In view of the above remarks, Applicant respectfully requests that all rejections be withdrawn and that a notice of allowance be forthcoming. The Examiner is invited to contact the undersigned for any reason related to the advancement of this case.

The Commissioner is hereby authorized to charge any additional fees due under 37 C.F.R. § 1.17 or credit any overpayment to Deposit Account 08-1641.

Respectfully submitted,



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